SIMPLIFIED ACQUISITION PROCEDURES (SAP) PERFORMANCE WORK STATEMENT (PWS)

DEPARTMENT OF VETERANS AFFAIRS
Office of Information & Technology
Application Development Competency Division

iOS Training

Date: May 20, 2013
PWS Version Number: 2.0

Contents

1.0   DESCRIPTION OF SERVICES

Department of Veterans Affairs (VA), Office of Information and Technology, Product Development Organization (PD) requires specialized training on iOS Software Development Kit (SDK) and the Objective-C programming language for the Apple Corporation's iPhone and iPad platforms. The training should allow for multiple Department of Veterans Affairs (VA) employees (developers) to attend a single session of a week's duration (7 days max).

2.0   APPLICABLE DOCUMENTS

Documents referenced or germane to this Performance Work Statement (PWS) are listed below. In the performance of the tasks associated with this Performance Work Statement, the Contractor shall comply with the following:

1. 44 U.S.C. § 3541, "Federal Information Security Management Act (FISMA) of 2002"
2. Federal Information Processing Standards (FIPS) Publication 140-2, "Security Requirements For Cryptographic Modules"
3. 42 U.S.C. § 2000d "Title VI of the Civil Rights Act of 1964"
4. Department of Veterans Affairs (VA) Directive 0710, "Personnel Suitability and Security Program," May 18, 2007
5. Technical Reference Model (TRM) (reference at http://trm.oit.va.gov/TRMHomePage.asp, or https://www.voa.va.gov/)
6. National Institute Standards and Technology (NIST) Special Publications

3.0   SCOPE OF WORK

The Contractor shall specialized training on ios software development kit (sdk) and the objective-c programming language for the apple corporation's iphone and ipad platforms.

4.0   PERFORMANCE DETAILS

4.1   PERFORMANCE PERIOD

The period of performance shall be six months from date of award.

4.1   PLACE OF PERFORMANCE

Tasks under this PWS shall be performed at the Contractor facilities.

4.2   TRAVEL

Not required

5.0   SPECIFIC TASKS AND DELIVERABLES

Services for Apple Corporation training class on iOS Software Development Kit (SDK) and the Objective-C programming language for the iPhone and iPad platforms for the VA Office of Information and Technology (OIT). The unique curriculum must include as a minimum, the following: the latest iOS SDK and the Objective-C programming language, a collegiate environment, ability for the students to practice with their own devices or hands on training, and combination of formal instruction and lab capabilities.

The Contractor shall provide a training program for 14 VA employees for the formal initial training to include six for the refresher training if available. Training should include the following items:

- Designing, coding and debugging mobile applications in various software languages.
- Software analysis, code analysis, requirements analysis, software review, identification of code metrics, and system risk Analysis, software reliability analysis for mobile applications.
- Front end graphical user interface design of mobile applications.
- Software testing and quality assurance of mobile applications
- Performance tuning, improvement, balancing, usability, automation of mobile applications
- Support, maintain and document software functionality for mobile applications
- Integration of software with existing Department of Veterans Affairs systems.
- Participation in testing and troubleshooting programs utilizing the appropriate hardware, database, and programming technology for mobile applications
- Maintain and modify mobile application programs; make approved changes by amending flow charts, develop detailed programming logic, and coding changes
- Authoring and maintaining programming documentation for the mobile application project
- Document programming problems and resolutions for future reference
- Technical specifics of writing mobile applications for the IOS platform as described in the tables below:

• Introduction	• An introduction to the instructor, Objective-C, and the course contents.
• Classes and Objects	• A brief introduction to the concepts of OOP programming.
• Messages and Methods	• How work gets done in an Objective-C program.
• NSString	• Work with strings.
• Constants	• Using #define and global variables
• Preprocessor	• Understand what can be done by the preprocessor.

• Your First Class	• Writing your own classes.
• Inheritance	• The root. Extension through inheritance. Overriding methods.
• retain and release	• Introduction to Memory Management.
• NSAutoreleasePool	• Understand the autorelease stack.
• Collection Classes	• Arrays, dictionaries, and sets.
• Writing files	• NSString and NSData.
• Callbacks	• A brief introduction to target-action, helper objects, and notifications.
• Protocols	• Required and optional methods for arbitrary objects.
• init	• Convenience and designated initializers.

iOS (iPhone/iPad)	
• The Tools	• Using Xcode and the iPhone Simulator
• Simple iOS App	• Develop a simple iOS app using UIKit
• Objective-C	• Learn the language used in all iOS development
• Custom UIView Subclasses	• Subclass UIView for custom drawing and event handling
• Memory Management	• Use the reference counting mechanism correctly to prevent memory leaks and premature deallocation
• Core Graphics	• Drawing with Quartz
• Multi-touch Events	• Dealing with Multi-touch events
• Delegates	• Using the delegate design pattern
• Table View	• Using table views, table view controllers and creating custom table view cells
• The Accelerometer	• Using the accelerometer for input. Also, dealing with orientation.
• Notifications and Rotation	• Use the notification design pattern to receive notifications of orientation change. Also covered: Autorotation
• Core Animation	• Using core animation to create unique user interfaces
• Toolbars and View Controllers	• Create applications with more than one view
• Navigation	• Using navigation controllers to display multiple user

Controller	interfaces
• Key-Value Coding and Observing	• Using and customizing the KVC and KVO mechanism.
• Archiving and Unarchiving	• Using NSCoder for data persistence
• Web Services	• Using NSURLConnection to access web services
• Camera	• Accessing the camera and using the Image Picker
• Low-memory Warnings	• How to deal with low-memory warnings
• Categories	• Add methods to existing classes
• Audio and Video	• Playing audio and video
• Core Location and Map Kit	• Use Location services to find your location and plot it on a map
• Localization	• Making internationalized iOS apps
• Bonjour	• Publishing services and browsing for services on the network
• Preferences	• Letting the user store preferences for an application
• Instruments	• Using Instruments to locate performance problems and memory leaks
• Blocks	• Using Objective-C blocks
• Split View Controllers	• Using the split view controller to show side-by-side interfaces on the iPad
• Modal and Popover View Controllers	• Presenting user interfaces in popover windows and form sheets
• Core Data	• Using Core Data with SQLite for data persistence
• Web Server	• Implementing a web server in Objective-C with Cocoa on Mac OS X
• Push Notifications	• Adding push notifications to iOS applications
• Network Programming	• Using NSStream for streaming data transfers

Deliverables:

    A. List of features included with the class per student (e.g., lodging, meals, transportation, etc.)

    B. List of supplies included in the class (e.g., equipment, software, books, etc.)

C. List of students pre-requisites (e.g., equipment to bring, skills, etc)

5.1 CURRICULUM OUTLINE

The Contractor shall provide the Contracting Officer's Representative (COR) with a copy of the training curriculum in outline format in electronic form in Microsoft Word and Project formats at the outset of the training or in response to the RFP.

Deliverables:

A. Training outline

5.2 COMPLETION CERTIFICATES

The Contractor shall provide all VA employees who complete the training with a certificate of completion within 2 weeks of the end of the training.

Deliverables:

A. Completion Certificates

6.0 GENERAL REQUIREMENTS

6.1 ENTERPRISE AND IT FRAMEWORK

Not required.

6.2 CONTRACTOR PERSONNEL SECURITY REQUIREMENTS

The position sensitivity and the level of background investigation commensurate with the required level of access are:

☒ Not applicable. Contractor will have neither access to nor contact with VA systems or data. All training will be on contractor property; no access to VA property will be necessary.

6.3 METHOD AND DISTRIBUTION OF DELIVERABLES

The Contractor shall deliver documentation in electronic format, unless otherwise directed in Section B of the solicitation/contract. Acceptable electronic media include: MS Word 2000/2003/2007/2010, MS Excel 2000/2003/2007/2010, MS PowerPoint 2000/2003/2007/2010, MS Project 2000/2003/2007/2010, MS Access 2000/2003/2007/2010, MS Visio 2000/2002/2003/2007/2010, AutoCAD 2002/2004/2007/2010, and Adobe Postscript Data Format (PDF).

6.4 PERFORMANCE METRICS

The table below defines the Performance Standards and Acceptable Performance Levels for Objectives associated with this effort*.*

Performance Objective	Performance Standard	Acceptable Performance Levels
1. Technical Needs	Shows understanding of requirements Efficient and effective in meeting requirements Meets technical needs and mission requirements Offers quality services/products	Acceptable/ Unacceptable
2. Project Milestones and Schedule	Quick response capability Training completed, reviewed, delivered in timely manner Notifies customer in advance of potential problems	Acceptable/ Unacceptable

The Government will utilize a Quality Assurance Surveillance Plan (QASP) throughout the life of the contract to ensure that the Contractor is performing the services required by this PWS in an acceptable manner. The Government reserves the right to alter or change the surveillance methods in the QASP at its own discretion. A SAP Performance Based Service Assessment Survey will be used in combination with the QASP to assist the Government in determining acceptable performance levels.

6.5   FACILITY/RESOURCE PROVISIONS

The Contractor shall provide training space and other facilities as required in order to accomplish the Tasks associated with this PWS.

The Contractor shall request other Government documentation deemed pertinent to the work accomplishment directly from the Government officials with whom the Contractor has contact. The Contractor shall consider the COR as the final source for needed Government documentation when the Contractor fails to secure the documents by other means. The Contractor is expected to use common knowledge and resourcefulness in securing all other reference materials, standard industry publications, and related materials that are pertinent to the work.